DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027119
Date Inspected: 31-Jan-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Jobsite

CWI Name:	As noted below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

13E/PP121.5/E3 Lifting Lug Hole W1 (Exterior)

This QA Inspector at random intervals, observed ABF welder Salvador Sandoval employ a propane burner to heat the Complete Joint Penetration (CJP) joint on W1 at 13E/PP121.5/E3 to a minimum temperature of 66° C. QC Inspector Fred Von Hoff verified the pre-heat with an infra-red temperature gun and the welder performed the Shielded metal Arc Welding (SMAW) process in the 1G flat position utilizing 3.2mm E7018-H4R electrodes at 125 amperes. The welder was observed grinding the start/stop edges of the weld with a small disc grinder as the QC Inspector monitored the inter-pass temperatures. Upon completion of W1 the welder ground and blended the excessive reinforcement to a near flush surface condition and made preparations for the fit up of W4 at the same location. The QC Inspector was observed measuring the planar offset of the deck and the 20mm insert to within 1mm. Mr. Sandoval began applying the SMAW process after pre-heating the B-U4a joint as the QC Inspector monitored the welding and the parameters to ensure the work was in conformance with ABF-WPS-D1. 5-1050A-CU. This QA Inspector noted that the work was in progress and appeared to be in general compliance with the contract specifications. This joint is a Seismic Performance Critical Member (SPCM).

12E/13E/A4 FCAW-G (Interior)

This QA Inspector randomly observed ABF welding operator James Zhen (ID 6001) performing the Flux Core Arc Welding with gas (FCAW-G) process utilizing a “Bug-O” motorized rail system with a magnetic base attached in the (4G) overhead position on the underside of deck plate “A4”, at 12E/13E of the OBG. This QA Inspector observed QC Inspector Fred Von Hoff monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=265/V=23.7/TS=190/HI=1. 98). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general conformance to the contract requirements. This joint is a Seismic Performance Critical Member (SPCM).

12E/PP111/E3 Lifting Lug Hole W4 repair (Exterior)

This QA Inspector randomly observed ABF welder Rick Clayborn performing the back-gouge operation of an ultrasonic rejectable indication on “A” deck Lifting Lug Hole W4 located at "Y" 325 mm: (35 mm wide; 70 mm length; and 11 mm in depth). This QA Inspector observed QC Inspector Fred Von Hoff perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector noted that Mr. Von Hoff found that no rejectable indications were present.

This QA Inspector randomly observed ABF welder Rick Clayborn (Welder ID 2773) performing the repair welding operation of an ultrasonic indication as per the SMAW process in the (1G) flat position on “A” deck Lifting Lug Hole W4 at 12E/PP111/E3. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector Fred Von Hoff verify that the preheat temperature was at the minimum of 66 degrees C and that the welding parameters (Amps=135) were in accordance with WPS D1.5–1001- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

13E/14E/A5 FCAW-G (Interior)

This QA Inspector at random intervals, observed ABF welder Wai Kit Lai (ID 2953) perform the FCAW-G process in the 4G overhead position while employing a Bug-O motorized rail system on “A5” at 13E/14E on the interior of the OBG. This QA Inspector observed QC Inspector Fred Von Hoff calculate and monitor the parameters recorded as; (A=245/V=23.7/TS=190/HI=1.83). This QA Inspector made subsequent observations throughout the shift noted that the work was in progress and appeared to be in general conformance with ABF-WPS-D1.5-3110-4.

High Line Tie Back Beam (Exterior)

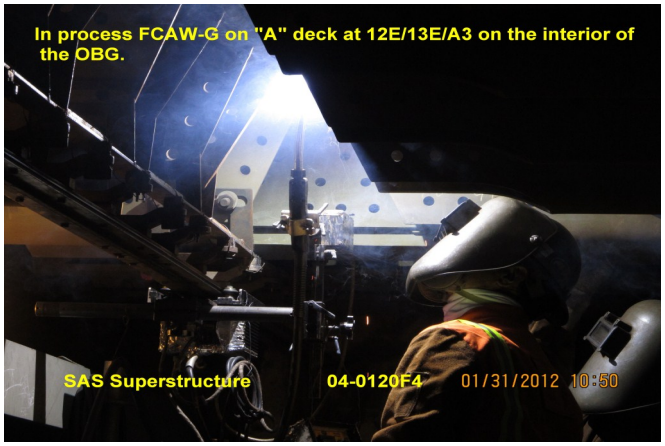
This QA Inspector randomly observed ABF welder Xiao Jian Wan perform SMAW on the 19mm thick base plate of the Tie Back Beam located at 14E/PP125/E3 and E1. QC Inspector Fred Von Hoff measured the pre-heat and the 6mm longitudinal fillet welds were placed on each of the four (4) corners of the two (2) base plates for a length of 152mm’s. (See photo below) RFI 2685-Revision-00 was referenced and this QA Inspector noted that the work appears to be in general conformance with WPS-D1.5-F1200A. This location on the deck is a Seismic Performance Critical Member (SPCM).

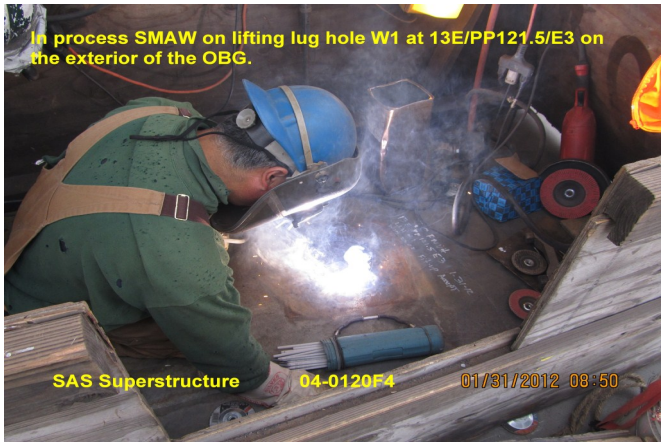
Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this

report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.





Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer